- 1. General Description
- 2. Relay and Fuse
- 3. Door Lock Control System
- 4. Keyless Access With Push Button Start System
- 5. Security System
- 6. Door Inner Remote
- 7. Door Outer Handle
- 8. Door Latch & Door Lock Actuator Assembly
- 9. Door Lock Switch
- 10. Trunk Opener Switch
- 11. Trunk Lid Latch and Actuator Assembly
- 12. Front Hood Lock Assembly
- 13. Fuel Lid
- 14. Key Lock Cylinders
- 15. Access Key
- 16. Immobilizer Antenna
- 17. Keyless Access Indoor Antenna
- 18. Keyless Access Outdoor Antenna
- 19. Trunk Opener Button
- 20. Keyless Access CM
- 21. ID Code Box
- 22. Steering Lock CM
- 23. Push Button Ignition Switch
- 24. Access Buzzer
- 25. Function Setting (Customize)
- 26. Diagnostics with Phenomenon

# **SECURITY AND LOCKS > General Description**

#### **CAUTION**

- When performing service operation, refer to "Repair Contents" in "General Description". <a href="#">Ref. to REPAIR CONTENTS>Repair Contents</a>.
- Refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section. Ref. to AIRBAG SYSTEM Section. Ref. to AIRBAG SYSTEM Section.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor.
     Ref. to REPAIR CONTENTS > NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.
- If any immobilizer related part has been replaced, make sure to register the immobilizer.

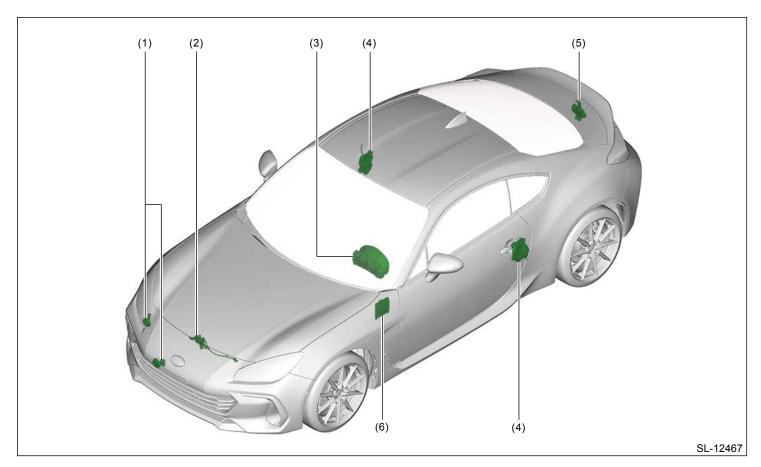
# **SECURITY AND LOCKS > General Description**

### LOCATION

### 1. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

Refer to "Electrical Component Location" for "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Electrical Component Location.

#### 2. SECURITY SYSTEM



(1) Horn

- (3) Security indicator light (in combination meter)
- (5) Trunk lid latch switch (lock ASSY trunk lid)

- (2) Hood switch (lock ASSY front hood)
- (4) Door switch (latch & actuator ASSY front)
- (6) Body integrated unit

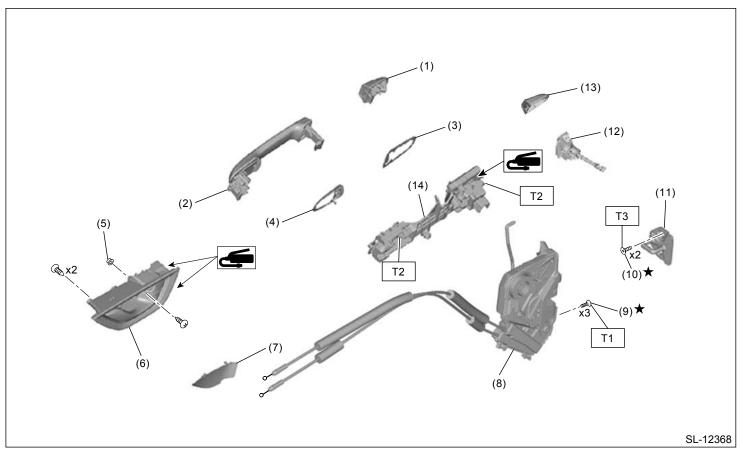
#### Note:

For the location of spot map light and hazard lights, refer to "General Description" in "LIGHTING SYSTEM" section. Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.

# **SECURITY AND LOCKS > General Description**

### COMPONENT

# 1. DOOR LOCK ASSEMBLY



- Cover handle front outer (passenger's side)
- (2) Handle front door outer
- (3) Spacer door handle outer B
- (4) Spacer door handle outer A
- (5) Grommet screw
- (6) Remote ASSY door
- (7) Cap remote

- (8) Latch & actuator ASSY front
- (9) TORX® bolt
- (10) Screw
- (11) Striker door
- (12) Key cylinder (driver's side)
- (13) Cover handle front outer (driver's side)
- (14) Frame ASSY front door outer

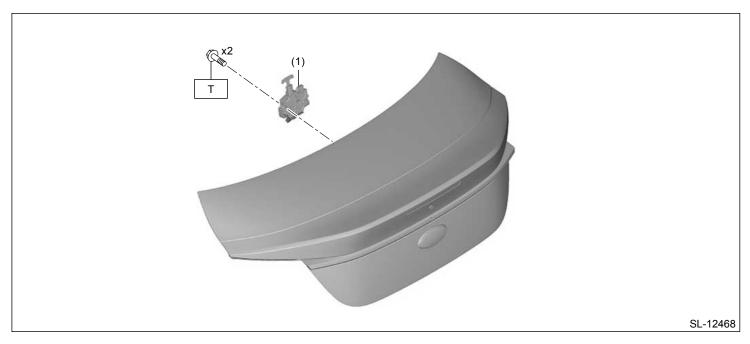
# Tightening torque: N⋅m (kgf-m, ft-lb)

T1: 6.5 (0.7, 4.8)

T2: 7.5 (0.8, 5.5)

T3: 18 (1.8, 13.3)

# 2. TRUNK LID LOCK

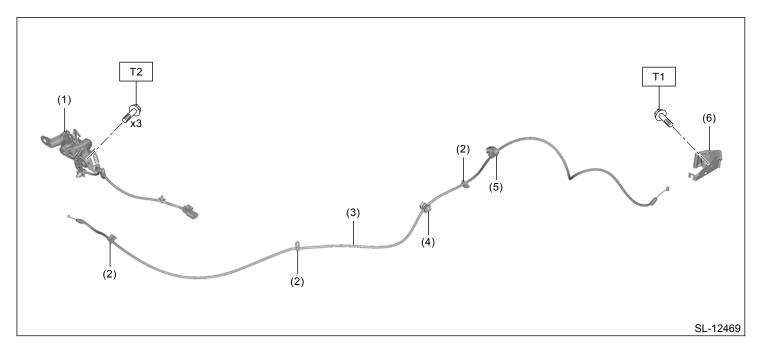


(1) Lock ASSY trunk lid

Tightening torque: N⋅m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

# 3. FRONT HOOD LOCK



- (1) Lock ASSY front hood
- (4) Clip

Tightening torque: N⋅m (kgf-m, ft-lb)

(2) Clip

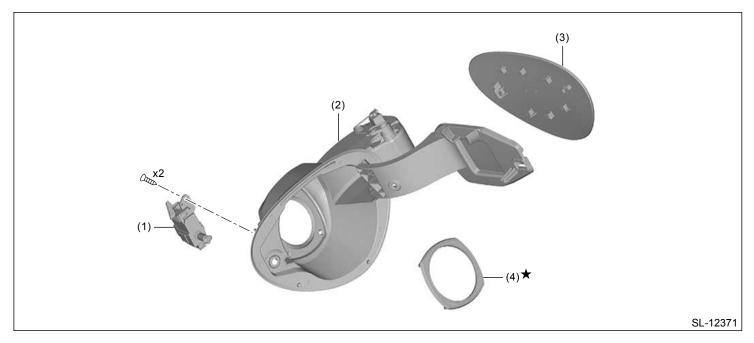
(5) Clip

T1: 7.5 (0.8, 5.5)

- (3) Cable ASSY front hood
- (6) Opener handle

T2: 33 (3.4, 24.3)

# 4. FUEL LID



(1) Lock ASSY fuel

(3) Flap outer

(4) Ring clip

(2) Saucer COMPL

### **5. STEERING LOCK**

For the components of the steering lock CM, refer to "Steering wheel and column" in the "POWER ASSISTED SYSTEM (POWER STEERING)" section. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>General Description>COMPONENT > STEERING WHEEL AND COLUMN.

**SECURITY AND LOCKS > General Description** 

# **PREPARATION TOOL**

# 1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
SSM	TOOL NUMBER	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system.  Note:  For detailed operation procedures, refer to "Help" of application.  Used together with interface
STSSM4			for Subaru Select Monitor (such as DST-i and DST-010).

# 2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

Drill	Used for replacing the steering lock CM.	
Reverse tap	Used for replacing the steering lock CM.	
TUDAR ISU	Used for removing and installing the latch & actuator assembly, door outer handle cover and frame assembly.	

# **SECURITY AND LOCKS > Relay and Fuse**

### **LOCATION**

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

#### Note:

For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

# **SECURITY AND LOCKS > Relay and Fuse**

### INSPECTION

### 1. CHECK FUSE

- 1. Remove the fuse and inspect visually.
- **2.** If the fuse is blown out, replace the fuse.

# Note:

If the fuse is blown again, check the system wiring harness.

### 2. CHECK RELAY

1. Measure the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	$1$ M $\Omega$ or more	
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 $\Omega$	1 2 0 0 1 2 3 4 LI-01273

Terminal No.	Inspection conditions	Standard	Circuit
1 — 4	Always	1 MΩ or more	

1 — 4	Apply battery voltage between terminals 2 and 3.	Less than $1$	
			AC-02796

2. Replace the relay if the inspection result is not within the standard value.

# SECURITY AND LOCKS > Door Lock Control System

#### WIRING DIAGRAM

For the wiring diagram, refer to "Door Lock Control System" in the wiring diagram. Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.

# SECURITY AND LOCKS > Door Lock Control System

### INSPECTION

### 1. BASIC INSPECTION

For the basic inspection, refer to "Basic Diagnostic Procedure" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL (DIAGNOSTICS) > Basic Diagnostic Procedure.

### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "BODY CONTROL (DIAGNOSTICS)". <u>Ref. to BODY CONTROL(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.</u>

# 3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL(DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

### 4. SYMPTOM CHART

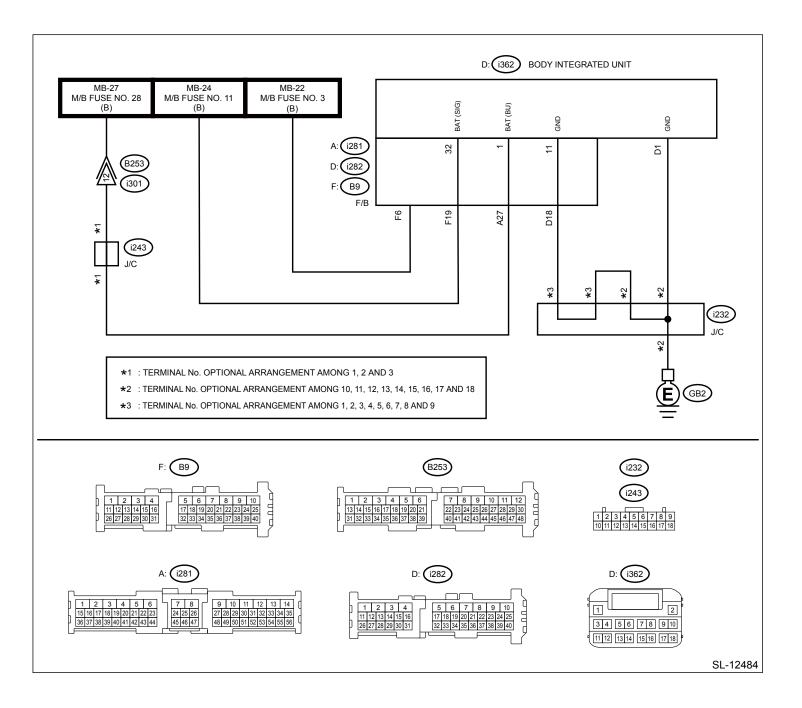
Symptoms	Repair order	Reference
	1. Check the power supply and ground	Ref. to SECURITY AND
	circuit for body integrated unit	LOCKS>Door Lock Control
		<u>System&gt;INSPECTION &gt;</u>
		CHECK BODY INTEGRATED
		UNIT POWER SUPPLY AND
		GROUND CIRCUIT.
	2. Check the door lock switch and the	Ref. to SECURITY AND
	circuit	LOCKS>Door Lock Control
		<u>System&gt;INSPECTION &gt;</u>
		CHECK DOOR LOCK SWITCH.
	3. Check the door switch and the circuit	Ref. to SECURITY AND
The door lock control system		LOCKS>Door Lock Control
does not operate		<u>System&gt;INSPECTION &gt;</u>
·		CHECK DOOR SWITCH.
	4. Check the trunk opener switch and	Ref. to SECURITY AND
	the circuit	LOCKS>Door Lock Control
		<u>System&gt;INSPECTION &gt;</u>
		CHECK TRUNK OPENER

		SWITCH CIRCUIT.
	5. Check the door lock actuator and the	Ref. to SECURITY AND
	circuit	LOCKS>Door Lock Control
		<u>System&gt;INSPECTION &gt;</u>
		CHECK DOOR LOCK
		ACTUATOR AND CIRCUIT.
	Check the door lock actuator and circuit	Ref. to SECURITY AND
A specific door lock actuator		LOCKS>Door Lock Control
A specific door lock actuator		<u>System&gt;INSPECTION &gt;</u>
does not operate		CHECK DOOR LOCK
		ACTUATOR AND CIRCUIT.

# 5. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

# Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



### 1. CHECK DTC.



- **1.** Turn the ignition switch to ON.
- 2. Read the DTC of [Body Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC B1011 or B1012 displayed?



Perform the diagnosis for the displayed DTCs. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.



Go to 2.

# 2. CHECK FUSE.



- **1.** Turn the ignition switch to OFF.
- **2.** Check the fuse on the upstream of the body integrated unit. Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION.

Is the check result OK?







Replace the defective fuse.

### 3. CHECK POWER SUPPLY.



- **1.** Disconnect the connector of body integrated unit.
- 2. Measure the voltage between the body integrated unit connector and chassis ground.

#### **Connector & terminal**

```
(i281) No. 27 (+) — Chassis ground (-):
(B9) No. 19 (+) — Chassis ground (-):
(B9) No. 6 (+) — Chassis ground (-):
```

Is the voltage 9 V or more?



**60 to 4.** 



Repair or replace the defective part.

### 4. CHECK GROUND CIRCUIT.



Measure the resistance between the body integrated unit connector and chassis ground.

#### **Connector & terminal**

```
(i282) No. 18 — Chassis ground: (i362) No. 1 — Chassis ground:
```

Is the resistance less than 10  $\Omega$ ?



The power supply and ground circuit are OK.

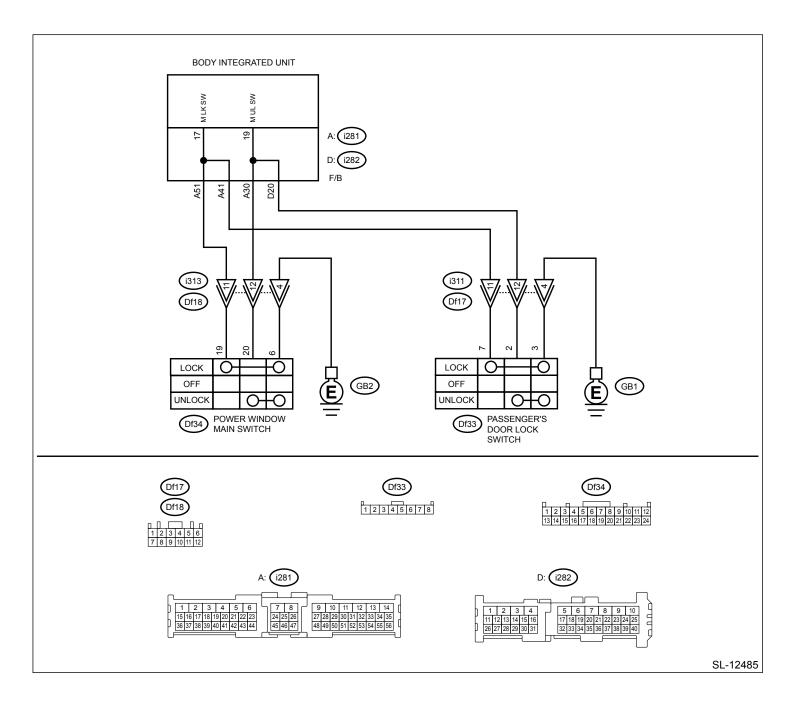


Repair or replace the defective part.

### 6. CHECK DOOR LOCK SWITCH

#### Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



#### 1. CHECK DATA MONITOR.



- 1. Turn the ignition switch to ON.
- 2. Using Subaru Select Monitor, display [Manual lock SW input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change as  $[OFF] \longleftrightarrow [ON]$  when the door lock switch is moved to LOCK?



**Go to 2.** 



**Go to 3.** 

### 2. CHECK DATA MONITOR.



Using Subaru Select Monitor, display [Manual unlock SW input] in [Data monitor] of [Body Control].

Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change as  $[OFF] \longleftrightarrow [ON]$  when the door lock switch is moved to UNLOCK?



The door lock switch is OK.



**Go to 3.** 

### 3. CHECK DOOR LOCK SWITCH.



- 1. Turn the ignition switch to OFF.
- 2. Disconnect the door lock switch connector.
- 3. Check the door lock switch. Ref. to SECURITY AND LOCKS>Door Lock Switch>INSPECTION.

Is the door lock switch normal?



**60 to 4.** 



Replace the following faulty parts.

- Driver's side: Replace the power window main switch. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.
- Passenger's side: Replace the door lock switch.
   Ref. to SECURITY AND LOCKS>Door Lock Switch.

### 4. CHECK HARNESS.



Measure the resistance between the door lock switch connector and chassis ground.

**Connector & terminal** 

Driver's side

(Df34) No. 6 — Chassis ground:

Passenger's side

(Df33) No. 3 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?



**Go to 5.** 



Repair or replace the defective part.

#### 5. CHECK HARNESS.



- 1. Turn the ignition switch to ON.
- **2.** Check the harness between body integrated unit and door lock switch.

#### **Connector & terminal**

```
Driver's side
  (Df34) No. 19 (+) — Chassis ground (-):
  (Df34) No. 20 (+) — Chassis ground (-):
Passenger's side
  (Df33) No. 7 (+) — Chassis ground (-):
  (Df33) No. 22 (+) — Chassis ground (-):
```

Is the voltage 6 V or more?



Check the connector.



**60 to 6.** 

# 6. CHECK F/B.



- **1.** Remove the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit>REMOVAL.
- 2. Measure the resistance between the F/B terminals.

#### **Connector & terminal**

```
F/B No. 17 — (i281) No. 51:
F/B No. 17 — (i281) No. 41:
F/B No. 19 — (i281) No. 30:
F/B No. 19 — (i282) No. 20:
```

Is harness normal?



Check the connector.

If there is no abnormality, replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

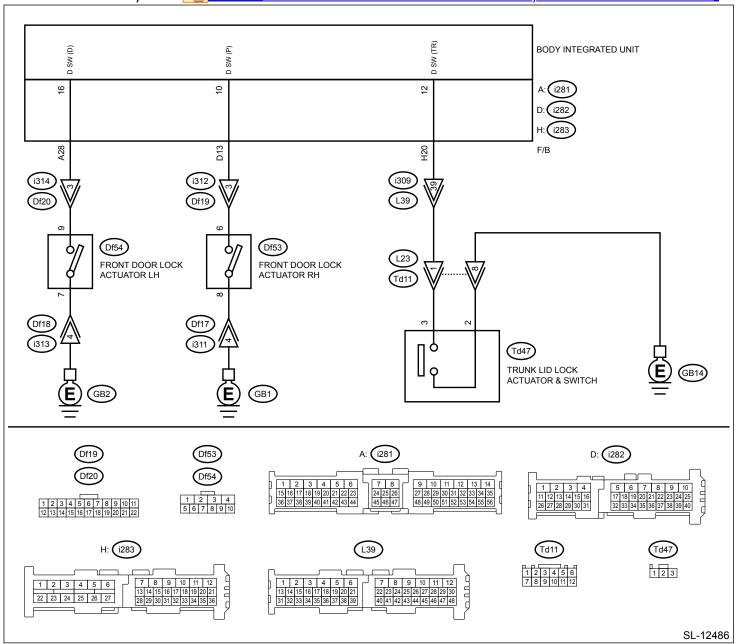
No

Replace the F/B.

### 7. CHECK DOOR SWITCH

### Wiring diagram:

# Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



### 1. CHECK DATA MONITOR.



- 1. Turn the ignition switch to ON.
- 2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
  - [Driver's door SW input]
  - [P-door SW input]
  - [R Gate SW input]

Does the display switch between  $[OFF] \longleftrightarrow [ON]$  when each door or trunk lid is opened/closed?



The door switch or the trunk lid latch switch is normal.



**Go to 2.** 

# 2. CHECK HARNESS.



- 1. Turn the ignition switch to OFF.
- 2. Disconnect the connector of the door switch or the trunk lid latch switch that does not show any change on the display.
- 3. Check the harness between body integrated unit and defective switch.

**Connector & terminal** 

```
Front door RH

(Df53) No. 6 (+) — Chassis ground (-):
Front door LH

(Df54) No. 9 (+) — Chassis ground (-):
Trunk lid

(Td47) No. 3 (+) — Chassis ground (-):
```

Is the voltage 6 V or more?





No

Repair or replace the defective part.

### 3. CHECK HARNESS.



Measure the resistance between the faulty switch connector and chassis ground.

**Connector & terminal** 

Front door RH

(Df53) No. 8 — Chassis ground:

**Front door LH** 

(Df54) No. 7 — Chassis ground:

Trunk lid

(Td47) No. 2 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?



**Go to 4.** 



Repair or replace the defective part.

### 4. CHECK DOOR SWITCH.



Measure the resistance between faulty switch terminals.

**Terminals** 

Front RH door switch

No. 6 - No. 8:

Front LH door switch

No. 9 — No. 7:

**Trunk lid latch switch** 

No. 3 - No. 2:

Is the resistance 1  $M\Omega$  or more when each door or the trunk lid is closed?







Replace the following faulty parts.

- Door latch & door lock actuator assembly: Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly.
- Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.

# 5. CHECK F/B.



- 1. Remove the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit>REMOVAL.
- 2. Measure the resistance between the F/B terminals.

#### **Connector & terminal**

F/B No. 16 — (i281) No. 28: F/B No. 10 — (i282) No. 13: F/B No. 12 — (i283) No. 20:

### Is harness normal?



Check the connector.

If there is no abnormality, replace the body integrated unit. <a>Ref. to BODY</a> <a>CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.</a>

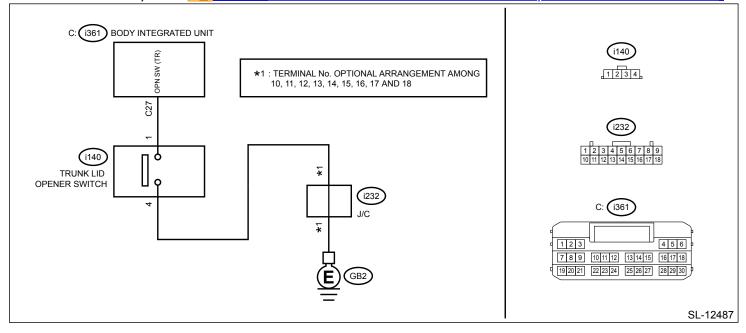
No

Replace the F/B.

# 8. CHECK TRUNK OPENER SWITCH CIRCUIT

### Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



### 1. CHECK DATA MONITOR.



- 1. Turn the ignition switch to ON.
- 2. Display the [R Gate Release SW input] data using Subaru Select Monitor. Ref. to BODY CONTROL(DIAGNOSTICS)>Data Monitor>OPERATION.

Does the display switch between [OFF]  $\longleftrightarrow$  [ON] when the trunk opener switch is operated?



The trunk opener switch is normal.



@ Go to 2.

### 2. CHECK HARNESS.



- 1. Turn the ignition switch to OFF.
- 2. Disconnect the connectors of body integrated unit and trunk opener switch.
- **3.** Check the harness between body integrated unit and trunk opener switch.

#### **Connector & terminal**

(i361) No. 27 - (i140) No. 1:

Is the resistance less than 10  $\Omega$ ?



**Go to 3.** 

No

Repair or replace the defective part.

### 3. CHECK HARNESS.



Measure the resistance between trunk opener switch connector and chassis ground.

#### **Connector & terminal**

(i140) No. 4 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?



**Go to 4.** 

No

Repair or replace the defective part.

### 4. CHECK TRUNK OPENER SWITCH.



Measure the resistance between terminals both when trunk opener switch is pressed and when not pressed.

#### **Terminals**

No. 1 - No. 4:

Is the resistance less than 10  $\Omega$  when the switch is pressed and 1 M $\Omega$  or more when not pressed?



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

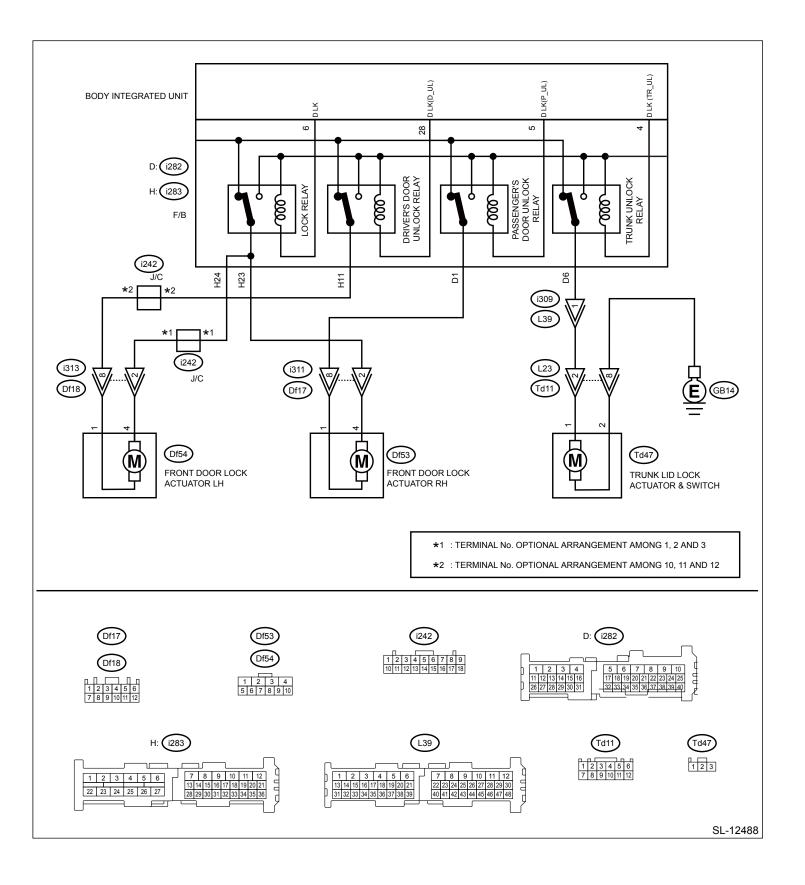


Replace the trunk opener switch. Ref. to SECURITY AND LOCKS>Trunk Opener Switch.

# 9. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

### Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



# 1. CHECK HARNESS (DOOR LOCK).



- 1. Turn the ignition switch to OFF.
- 2. Disconnect the body integrated unit and each door lock actuator connector.
- **3.** Check the harness between body integrated unit and each door lock actuator.

**Connector & terminal** 

```
Front door RH
(i283) No. 23 — (Df53) No. 4:
Front door LH
(i283) No. 24 — (Df54) No. 4:
```

Is harness normal?







Repair or replace the defective part.

# 2. CHECK HARNESS (DOOR UNLOCK).



Check the harness between body integrated unit and each door lock actuator.

**Connector & terminal** 

```
Front door RH (i282) No. 1 - (Df53) No. 1: Front door LH (i283) No. 11 - (Df54) No. 1:
```

Is harness normal?







Repair or replace the defective part.

# 3. CHECK HARNESS (TRUNK LID UNLOCK).



Check the harness between the body integrated unit and trunk lid lock actuator.

# **Connector & terminal**

(i282) No. 6 - (Tb47) No. 1:

Is harness normal?



**Go to 4.** 



Repair or replace the defective part.

# 4. CHECK HARNESS (TRUNK LID UNLOCK).



Measure the resistance between the trunk lid lock actuator connector and chassis ground.

#### **Connector & terminal**

(Tb47) No. 2 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?



**Go to 5.** 



Repair or replace the defective part.

### 5. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.



- 1. Connect the connector of body integrated unit.
- 2. Measure the voltage between terminals of the body integrated unit when operating the door lock switch to LOCK direction.

**Connector & terminal** 

Front door RH

(i283) No. 23 (+) — (i282) No. 1 (-):

Front door LH

(i283) No. 24 (+) — (i283) No. 11 (-):

Does the voltage change from less than 1 V  $\rightarrow$  9 V or more? (During lock output)



<u> Go to 6.</u>



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

### 6. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.



Measure the voltage between terminals of the body integrated unit when operating the door lock switch to UNLOCK direction.

**Connector & terminal** 

Front door RH
(i282) No. 1 (+) — (i283) No. 23 (-):
Front door LH
(i283) No. 11 (+) — (i283) No. 24 (-):

Does the voltage change from less than 1 V  $\rightarrow$  9 V or more? (During unlock output)



Go to 7.



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

### 7. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.



Measure the voltage between body integrated unit and chassis ground when operating the trunk opener switch.

### **Connector & terminal**

(i282) No. 6 (+) — Chassis ground (-):

Does the voltage change from less than 1 V  $\rightarrow$  9 V or more? (During unlock output)



**Go to 8.** 



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

### 8. CHECK DOOR LOCK ACTUATOR.



- **1.** Turn the ignition switch to OFF.
- **2.** Remove the door lock actuator. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>REMOVAL.
- **3.** Check the door lock actuator. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>INSPECTION.

Is the door lock actuator OK?



**Go to 9.** 



Replace the door latch and door lock actuator assembly. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly.

### 9. CHECK TRUNK LID LOCK ACTUATOR.



- **1.** Remove the trunk lid lock actuator. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>REMOVAL.
- **2.** Check the trunk lid lock actuator. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSPECTION.

Is trunk lid lock actuator normal?



Check the connection status of the harness and connector that may have a temporary poor contact.



Replace the trunk lid latch & actuator assembly. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.

# SECURITY AND LOCKS > Door Lock Control System

#### **NOTE**

For operation procedures of components of the door lock control system, refer to the sections below.

- Door latch and door lock actuator assembly: Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly.
- Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.
- Power window main switch: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.
- Door lock switch: Ref. to SECURITY AND LOCKS > Door Lock Switch.
- Trunk opener switch: Ref. to SECURITY AND LOCKS>Trunk Opener Switch.

# SECURITY AND LOCKS > Keyless Access With Push Button Start System

### **WIRING DIAGRAM**

For the wiring diagram, refer to "Keyless Access With Push Button Start System" in WI section. Ref. to WIRING SYSTEM>Keyless Access With Push Button Start System>WIRING DIAGRAM.

### SECURITY AND LOCKS > Keyless Access With Push Button Start System

### INSPECTION

### 1. BASIC INSPECTION

For basic inspection, refer to "Basic Diagnostic Procedure" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

#### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

# 3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

#### 4. POWER SUPPLY SWITCHING FUNCTION CHECK

- 1. Check push button ignition switch function
  - (1) Check the power supply switching control function with push button ignition switch operation, brake pedal operation, and select lever position.
    - AT model

Select lever position	Brake pedal operation	Push button ignition switch operation
Р	Released	Repeat Ignition switch OFF $\rightarrow$ ACC ON $\rightarrow$ Ignition switch ON $\rightarrow$ Ignition switch OFF
Р	Released	Engine running $ ightarrow$ Ignition switch OFF
Р	Depressed	Ignition switch OFF $ ightarrow$ Engine started
Р	Depressed	ACC ON → Engine started
Р	Depressed	Ignition switch ON $\rightarrow$ Engine started
Р	Depressed	Engine running $ ightarrow$ Ignition switch OFF
N	Released	Repeat Ignition switch OFF $\rightarrow$ ACC ON $\rightarrow$ Ignition switch ON $\rightarrow$ ACC ON
N	Released	Engine running → ACC ON

N	Depressed	Ignition switch OFF $ ightarrow$ Engine started
N	Depressed	ACC ON $\rightarrow$ Engine started
N	Depressed	Ignition switch ON $\rightarrow$ Engine started
N	Depressed	Engine running $ ightarrow$ ACC ON
Except for P and N	Released	Repeat Ignition switch OFF $ ightarrow$ ACC ON $ ightarrow$ Ignition switch
		$ON \to ACC \; ON$
Except for P and N	Released	Engine running $ ightarrow$ ACC ON
Except for P and N	Depressed	Ignition switch OFF $ ightarrow$ Ignition switch ON
Except for P and N	Depressed	ACC ON $ ightarrow$ Ignition switch ON
Except for P and N	Depressed	Engine running $ ightarrow$ ACC ON

#### MT model

Shift lever position	Clutch pedal operation	Push button ignition switch operation
	Released	Repeat Ignition switch OFF $\rightarrow$ ACC ON $\rightarrow$ Ignition switch ON $\rightarrow$ Ignition switch OFF
	Released	Engine running $ ightarrow$ Ignition switch OFF
_	Depressed	Ignition switch OFF $ ightarrow$ Engine started
	Depressed	ACC ON $\rightarrow$ Engine started
	Depressed	Ignition switch ON $\rightarrow$ Engine started
	Depressed	Engine running $ ightarrow$ Ignition switch OFF

- (2) Check the power supply switching functions with other than the push button ignition switch operation.
  - With the select lever in "P" position (AT model) and ACC ON, check that the ACC changes from ON → OFF when the vehicle is left for 20 minutes or more.
  - With the select lever in "P" position (AT model) and the ignition switch ON, check that ignition switch changes from ON → OFF when the vehicle is left for 1 hour or more.
- (3) If the inspection result indicates an improper operation, check the push button start system. 

  Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with 
  Phenomenon>LIST > POWER SUPPLY SWITCHING SYSTEM.

# SECURITY AND LOCKS > Keyless Access With Push Button Start System

#### NOTE

For procedure of components in the keyless access with push button start system, refer to the sections below.

- Access key: Ref. to SECURITY AND LOCKS>Access Key.
- Keyless access interior antenna: Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna.
- Keyless access exterior antenna: Ref. to SECURITY AND LOCKS>Keyless Access Outdoor Antenna.
- Keyless access CM: Ref. to SECURITY AND LOCKS>Keyless Access CM.
- Steering lock CM: Ref. to SECURITY AND LOCKS>Steering Lock CM.

- Push button ignition switch: Ref. to SECURITY AND LOCKS>Push Button Ignition Switch.
- Access buzzer: Ref. to SECURITY AND LOCKS>Access Buzzer.

# SECURITY AND LOCKS > Security System

#### WIRING DIAGRAM

For the wiring diagram, refer to "Security System" in the wiring diagram. Ref. to WIRING SYSTEM>Security System>WIRING DIAGRAM.

### SECURITY AND LOCKS > Security System

#### INSPECTION

### 1. BASIC INSPECTION

For the basic inspection, refer to "Basic Diagnostic Procedure" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL (DIAGNOSTICS) > Basic Diagnostic Procedure.

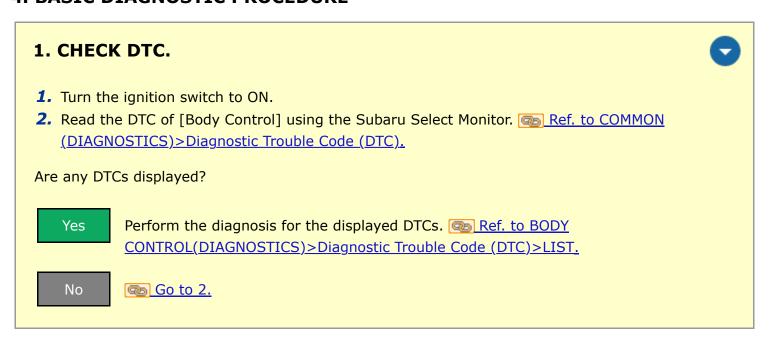
### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "BODY CONTROL (DIAGNOSTICS)". <u>Ref.</u> to BODY CONTROL(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

# 3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL (DIAGNOSTICS) > Control Module I/O Signal.

### 4. BASIC DIAGNOSTIC PROCEDURE



### 2. CHECK DATA MONITOR.



Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control].

Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Driver's door SW input]
- [P-door SW input]
- [R Gate SW input]
- [Hood Switch Close-side]

Does the display switch between [OFF]  $\longleftrightarrow$  [ON] when each door, trunk lid, or front hood is opened/closed?



**Go to 3.** 



- Check the door switch circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.
- Check the hood switch circuit. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HOOD SWITCH.

### 3. CHECK SECURITY SYSTEM SETTINGS.



Using Subaru Select Monitor, display [Security Alarm Setup] in [Data monitor] of [Body Control]. 

<u>Ref. to COMMON (DIAGNOSTICS)>Data Monitor.</u>

Is [Security Alarm Setup] set to [ON]?



Go to 5.



Go to 4.

## 4. CHANGE SETTING OF SECURITY SYSTEM.



Using Subaru Select Monitor, change the [Security Alarm Setup] to [ON]. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.

Is setting change completed correctly?



**Go to 5.** 



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

## 5. CHECK KEYLESS ACCESS SYSTEM OPERATION.



Check the operation of the keyless access system. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>General Description>INSPECTION.

Does the keyless access system operate normally?



@ Go to 6.



Check the keyless access system. Ref. to SECURITY AND LOCKS>Keyless Access With Push Button Start System>INSPECTION.

## 6. CHECK SECURITY SYSTEM OPERATION.



- 1. Turn the ignition switch to OFF and close all doors, trunk lid and front hood.
- 2. Check the status of security indicator light.
- 3. Press the LOCK button on the access key.
- **4.** Check the security indicator light blinking patterns.

Is the security indicator light blinking patterns as follows?

- Before pressing the LOCK button: Blinks once every 3 seconds
- After pressing the LOCK button: Illuminates for 30 seconds and then blinks







Check the security indicator light. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK SECURITY INDICATOR LIGHT CIRCUIT.

# 7. CHECK SECURITY ALARM OPERATION.



- **1.** Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals.
- **2.** Operate the driver's door lock switch to the UNLOCK side.
- 3. Open one of the doors.

Does the security alarm operate, the horn sound and the hazard light blink?



**Go to 8.** 



Check the following parts.

- Horn: Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HORN.
- Hazard light: Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HAZARD LIGHT OPERATION.

## 8. CHECK DEACTIVATION OF SECURITY ALARM.



Press the UNLOCK button of the access key while the security alarm is operating.

Do the horn sound and the blinking of the hazard light stop?



**Go to 9.** 



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

# 9. CHECK MANUAL SETTING CHANGE OF SECURITY SYSTEM.



- 1. Press the UNLOCK button on the access key.
- 2. Change the setting of security system. Ref. to SECURITY AND LOCKS>Security <u>System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.</u>

Is setting change completed correctly?



Restore the security system settings to those before the diagnosis and finish the diagnosis.



Check the door lock switch circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.

# 5. SECURITY SYSTEM ON/OFF SETTING

## Note:

It can be set by [Security Alarm Setup] in unit customizing using Subaru Select Monitor. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.



- 1. Close all the doors, trunk lid and front hood, and sit down on the driver's seat. Press the UNLOCK button on the access key.
- Turn the ignition switch to ON.
- 3. Press the central door unlock switch and open the driver's door simultaneously. (Keep the central door unlock switch pressed down.)
- 4. When the condition in step 3, continues for 10 seconds, the system switches to a mode reverse to the current mode.

Setting	Horn activation	Meter display
$ON \to OFF$	2 times	[AL OFF]

$OFF \to ON$	1 time	[AL ON]

## 6. CHECK DOOR SWITCH

For inspection of the door switch, refer to the "CHECK DOOR SWITCH" of the "Door Lock Control System".

Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.

## 7. CHECK SECURITY INDICATOR LIGHT CIRCUIT

For inspection of the security indicator light circuit, refer to "Warning Light Illumination Pattern" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Warning Light Illumination Pattern.

### 8. CHECK HORN

For inspection of the horn, refer to the "Horn System" of "HORN" section. Ref. to HORN>Horn System.

## 9. CHECK HAZARD LIGHT OPERATION

For operation procedures of the hazard lights, refer to "CHECK HAZARD LIGHT SYSTEM" of "LIGHTING SYSTEM". Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > TROUBLE SYMPTOM.

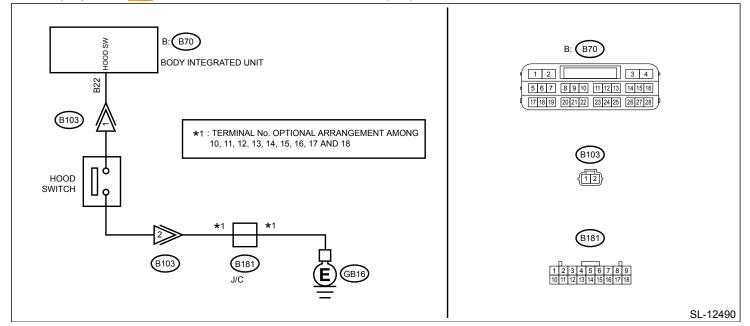
#### 10. CHECK IGNITION SWITCH CIRCUIT

For inspection of the ignition switch circuit, refer to "Basic Diagnostic Procedure" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

### 11. CHECK HOOD SWITCH

## Wiring diagram:

Security system Ref. to WIRING SYSTEM>Security System>WIRING DIAGRAM.



## 1. CHECK DATA MONITOR.



- 1. Turn the ignition switch to ON.
- 2. Using Subaru Select Monitor, display [Hood Switch Close-side] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF]  $\longleftrightarrow$  [ON] when the front hood is opened  $\longleftrightarrow$  closed?



The hood switch is OK.



@ Go to 2.

## 2. CHECK DATA MONITOR.



Using Subaru Select Monitor, display [Hood Switch Open-side] in [Data monitor] of [Body Control].

Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between  $[ON] \longleftrightarrow [OFF]$  when the front hood is opened  $\longleftrightarrow$  closed?



The hood switch is OK.



**Go to 3.** 

## 3. CHECK HARNESS.



- 1. Turn the ignition switch to OFF.
- 2. Disconnect the connector of body integrated unit.
- 3. Disconnect the connector of hood switch.
- **4.** Measure the resistance of harness between body integrated unit and hood switch.

#### **Connector & terminal**

(B70) No. 22 — (B103) No. 1:

Is harness normal?



<u>Go to 4.</u>



Repair or replace the defective part.

## 4. CHECK HARNESS.



Measure the resistance between the hood switch and chassis ground.

#### **Connector & terminal**

(B103) No. 2 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?



@ Go to 5.



Repair or replace the defective part.

## 5. CHECK HOOD SWITCH.



Check the hood switch. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>INSPECTION.

Is the hood switch normal?



Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.



Replace the lock assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly.

# SECURITY AND LOCKS > Security System

#### NOTE

For operation procedures of components in the security system, refer to the sections below.

- Horn: Ref. to HORN>Horn.
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Security indicator light (in combination meter): Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
- Door latch and door lock actuator assembly: Ref. to SECURITY AND LOCKS>Door Latch & Door Lock
   <u>Actuator Assembly.</u>
- Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator
   Assembly.
- Hood switch: Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly.
- Hazard switch: Ref. to LIGHTING SYSTEM>Hazard Switch.
- Spot map light: Ref. to LIGHTING SYSTEM>Spot Map Light.

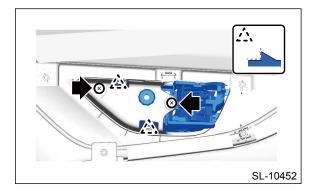
### SECURITY AND LOCKS > Door Inner Remote

#### REMOVAL

### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL.
- **3.** Remove the remote assembly door.
  - (1) Remove the screws.
  - (2) Release the claws and guides, and remove the remote assembly door.



#### SECURITY AND LOCKS > Door Inner Remote

#### INSTALLATION

# Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- **1.** Before installation, check the following items.
  - Cable is free from deformation such as fray.
  - Grease is applied sufficiently to cable joints.

If grease is insufficient, add it as necessary before assembling the cable.

#### **Preparation items:**

Grease: Silicone grease G-30M (part No. 004404002) or equivalent

- 2. Install the remote assembly door.
- 3. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
- **4.** Connect the ground terminal to battery sensor. <a> Ref. to REPAIR CONTENTS>NOTE > BATTERY.</a>

## SECURITY AND LOCKS > Door Inner Remote

## **INSPECTION**

Check if the remote inner handle operates normally.

- If the lever is faulty, replace the remote assembly door.
- If the cable is deformed, replace the latch & actuator assembly.

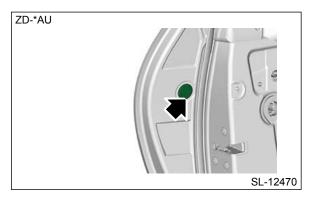
### SECURITY AND LOCKS > Door Outer Handle

## **REMOVAL**

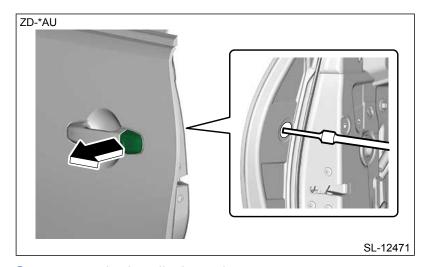
## Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Raise the glass assembly front door to the top position.
- 2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL.
- 4. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL.
- 5. Remove the cover handle front outer.
  - (1) Remove the plug at the rear end of the panel assembly front door.



 $\ensuremath{^{(2)}}$  Using TORX  $\ensuremath{^{(8)}}$  T30, loosen the bolt and remove the cover handle front outer.

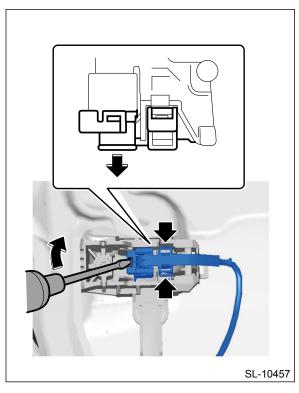


**6.** Remove the handle front door outer.

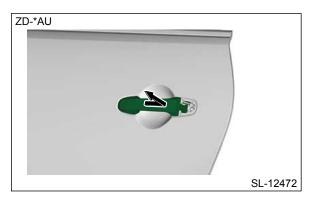
#### Caution:

Do not apply excessive force to remove the outer handle from the door frame assembly.

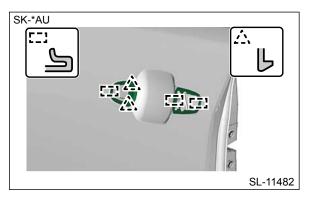
(1) Disconnect the harness clip and exterior antenna (touch sensor) connector using a flat tip screwdriver or similar tool wrapped with protection tape.



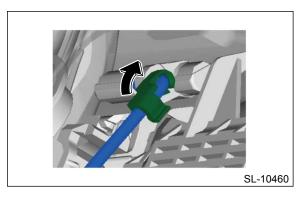
(2) Remove the handle front door outer by pulling it toward yourself and to the rear as shown in the figure.



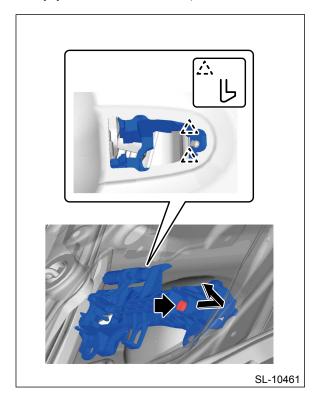
7. Release the claws and hooks, and remove the spacer door handle outer A and B.



- **8.** Remove the frame assembly front door outer.
  - (1) Remove the rod clamp and remove the rod.



- (2) Using TORX® T30, loosen the bolt.
- (3) Release the claws, and remove the frame assembly front door outer as shown in the figure.



## **SECURITY AND LOCKS > Door Outer Handle**

## **INSTALLATION**

## Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- **1.** Before installation, check the following items.
  - Rod is free from deformation.
  - Grease is applied sufficiently to rod joints.

If grease is insufficient, add it as necessary before assembling the rod.

## **Preparation items:**

Grease: Silicone grease G-30M (part No. 004404002) or equivalent

Using TORX<sup>®</sup> T30, tighten the bolt of the frame assembly front door outer.

# **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

- 3. Install the spacer door handle outer A and B.
- 4. Install the handle front door outer.
  - (1) Insert the handle door outer to the frame assembly front door outer.
  - (2) Connect the connector.
- **5.** Using TORX<sup>®</sup> T30, install the cover handle front outer.

## Note:

When installing the outer handle cover on the driver's side, make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

## **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

- **6.** Install the plugs.
- 7. Install the rod to the frame assembly front door outer.
- **8.** Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION.
- **9.** Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
- **10.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## **SECURITY AND LOCKS > Door Outer Handle**

### INSPECTION

Check if the outer handle operates normally.

- If the handle joint portion is faulty, replace the handle door outer or the frame assembly door outer.
- If the rod is deformed, replace the latch & actuator assembly.

# SECURITY AND LOCKS > Door Latch & Door Lock Actuator Assembly

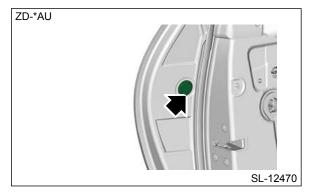
### **REMOVAL**



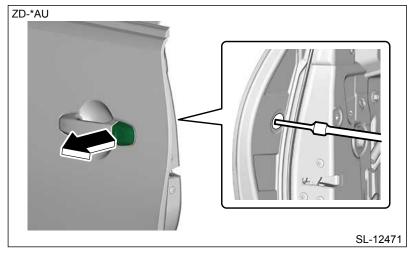
#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

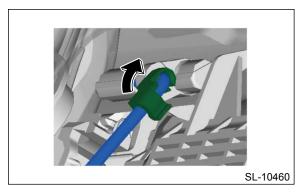
- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL.
- 3. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL.
- **4.** Remove the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL > FRONT DOOR GLASS.
- 5. Remove the cover handle front outer. (If removing the driver's side latch and actuator assembly front) (1) Remove the plug at the rear end of the panel assembly front door.



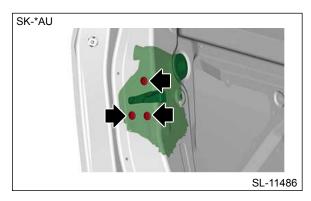
(2) Using  $\mathsf{TORX}^{(\!R\!)}$  T30, loosen the bolt and remove the cover handle front outer.



- **6.** Remove the latch and actuator assembly front.
  - (1) Remove the rod clamp and remove the rod.



(2) Using TORX $^{(2)}$  T30, remove the bolts, and remove the latch & actuator assembly front.



# SECURITY AND LOCKS > Door Latch & Door Lock Actuator Assembly

### **INSTALLATION**

## Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- **1.** Before installation, check the following items.
  - Cable and rod are free from deformation.
  - Grease is applied sufficiently to cable and rod joints.

If grease is insufficient, add it as necessary before assembling the cable and rod.

### **Preparation items:**

Grease: Silicone grease G-30M (part No. 004404002) or equivalent

- 2. Install the latch and actuator assembly front.
  - (1) Using TORX<sup>®</sup> T30, install new bolts.

## **Tightening torque:**

6.5 N·m (0.7 kgf-m, 4.8 ft-lb)

- (2) Install the rod.
- **3.** Using TORX<sup>®</sup> T30, install the cover handle front outer. (If the driver's side latch & actuator assembly front has been removed)

### Note:

Make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

# **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

- 4. Install the plugs. (If the driver's side latch & actuator assembly front has been removed)
- **5.** Install the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION > FRONT DOOR GLASS.
- **6.** Adjust the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>ADJUSTMENT.
- 7. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION.
- 8. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
- **9.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

# SECURITY AND LOCKS > Door Latch & Door Lock Actuator Assembly

### **INSPECTION**

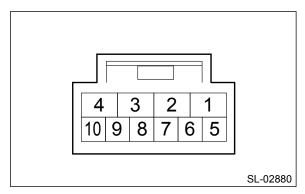
### 1. LATCH

Check if the latch operates normally.

- If latch deformation, abnormal wear, or unsmooth operation is observed, replace the latch & actuator assembly.
- If the cable or rod is deformed, replace the latch & actuator assembly.

## 2. LOCK ACTUATOR

Check door lock operation
 Check the door lock operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
4 (+) - 1 (-)	Apply battery voltage.	LOCK
1 (+) - 4 (-)		UNLOCK

## 2. Check position switch

Measure the resistance between connector terminals.

Terminal No.	Inspection conditions	Standard
7 0	LOCK	1 M $\Omega$ or more
7 — 8	UNLOCK	Less than 1 $\Omega$

- **3.** Check door switch For inspection, refer to "Door Switch" in "LIGHTING SYSTEM" section. Ref. to LIGHTING SYSTEM SYSTEM SWITCH SWITC
- 4. Replace the latch & actuator assembly if it is found defective as a result of inspection.

## **REMOVAL**

## 1. DRIVER'S SIDE

The driver's door lock switch is integrated into the switch power window main.

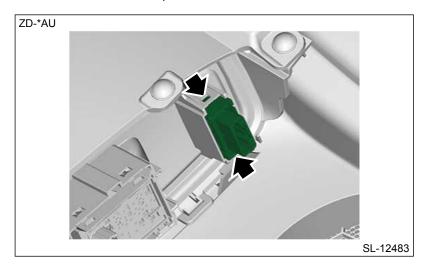
For the operation procedures of the driver's door lock switch, refer to "Power Window Control Switch" in "GLASS/WINDOWS/MIRRORS" section. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.

#### 2. PASSENGER'S SIDE

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the trim panel front door RH. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL.
- **3.** Release the claws, and then remove the switch door lock.



## SECURITY AND LOCKS > Door Lock Switch

### INSTALLATION

### 1. DRIVER'S SIDE

The driver's door lock switch is integrated into the switch power window main. For the operation procedures, refer to "Power Window Control Switch" in "GLASS/WINDOWS/MIRRORS" section. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>INSTALLATION > MAIN SWITCH.

### 2. PASSENGER'S SIDE

## Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- Use protective paper to avoid damage to the trim panel.
- 1. Install the switch door lock on the trim panel front door.
- **2.** Install the trim panel front door RH. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
- 3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Door Lock Switch

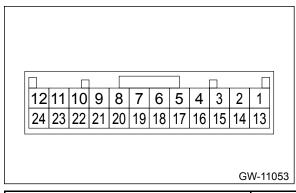
### **INSPECTION**

### **Caution:**

Since the power window switch is controlled by CPU, do not check continuity for switch alone with the circuit tester, except for the specified terminals. Performing continuity check with circuit tester may damage the power window switch circuit.

## 1. DRIVER'S SIDE

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
19 — 6	OFF	1 M $\Omega$ or more
	LOCK	Less than 1 $\Omega$
20 — 6	OFF	1 M $\Omega$ or more
	UNLOCK	Less than 1 $\Omega$

**2.** Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

#### Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (-) side.

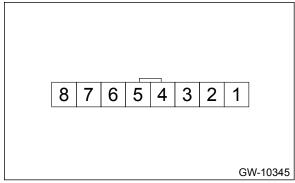
Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification

3. Replace the switch power window main if it is found defective from the inspection result.

# 2. PASSENGER'S SIDE

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
7 — 3	OFF	1 M $\Omega$ or more
	LOCK	Less than 1 $\Omega$
2 — 3	OFF	1 M $\Omega$ or more
	UNLOCK	Less than 1 Ω

**2.** Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

## Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (-) side.

Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
6 (+) — 4 (–)	Apply battery voltage.	Light ON

**3.** Replace the switch door lock if it is found defective.

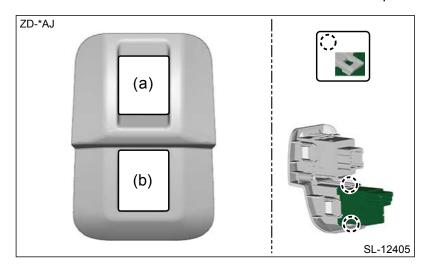
# SECURITY AND LOCKS > Trunk Opener Switch

### **REMOVAL**

### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **2.** Remove the cover LWR driver OUT. <a href="Mailto:Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL">REMOVAL</a> OUTSIDE.
- **3.** Release the claws and remove the switch trunk opener (b).



# SECURITY AND LOCKS > Trunk Opener Switch

## **INSTALLATION**

#### Caution:

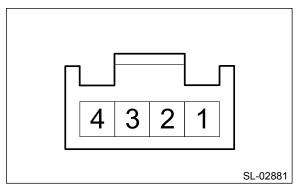
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Install the switch trunk opener.
- 2. Install the cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > OUTSIDE.
- 3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

# **SECURITY AND LOCKS > Trunk Opener Switch**

### **INSPECTION**

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 4	Switch OFF	1 M $\Omega$ or more
1-4	Switch ON	Less than 1 $\Omega$

**2.** Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

### Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (-) side.

Incorrect polarity connection may cause LED damage inside the switch.

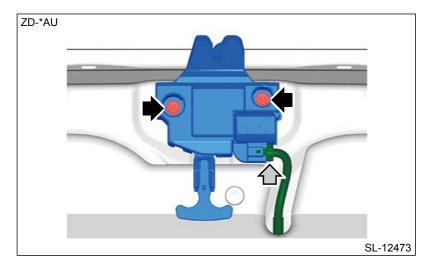
Terminal No.	Inspection conditions	Specification
2 (+) — 3 (–)	Apply battery voltage.	Light ON

**3.** Replace the switch trunk opener if it is found defective.

# **SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly**

## **REMOVAL**

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the lock assembly trunk lid.
  - (1) Disconnect the connector.
  - (2) Remove the bolts, then remove the lock assembly trunk lid.



# **SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly**

### **INSTALLATION**

1. Install the lock assembly trunk lid and connect the connector.

## **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly

## **INSPECTION**

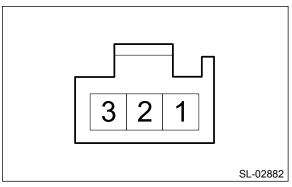
### 1. LATCH

Check if the latch operates normally.

If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly trunk lid.

## 2. ACTUATOR

Check door lock operation
 Check the door lock operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
1 (+) - 2 (-)	Connect battery to the terminals	OPEN

# 2. Check switch

Measure the resistance between connector terminals.

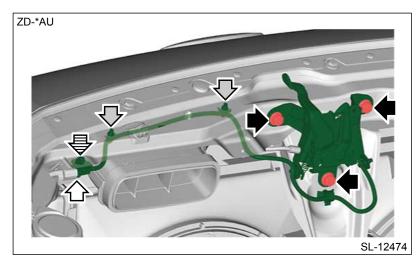
Terminal No.	Inspection conditions	Standard
3 — 2	LOCK	1 M $\Omega$ or more
3 – 2	UNLOCK	Less than 1 $\Omega$

**3.** Replace the lock assembly trunk lid if it is found defective.

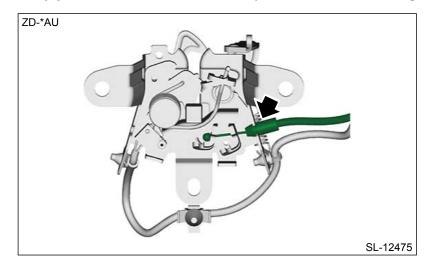
### **REMOVAL**

### 1. HOOD LOCK ASSEMBLY

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
- 2. Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.
- 3. Remove the lock assembly front hood.
  - (1) Disconnect the connector.
  - (2) Remove the connector clip and harness clip.
  - (3) Remove the bolts, and remove the lock assembly front hood.



(4) Remove the cable assembly front hood from the guide.



## 2. HOOD CABLE ASSEMBLY

### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

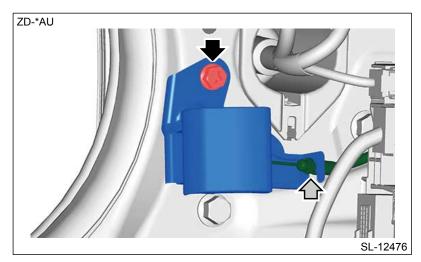
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

- 2. Remove the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>REMOVAL.
- **3.** Remove the cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > OUTSIDE.
- **4.** Remove the cover side sill front Rr LH and the cover side sill front Ft LH. <u>Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.</u>
- 5. Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.
- **6.** Remove the lock assembly front hood, and then attach a string to the end of the cable assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>REMOVAL > HOOD LOCK ASSEMBLY.

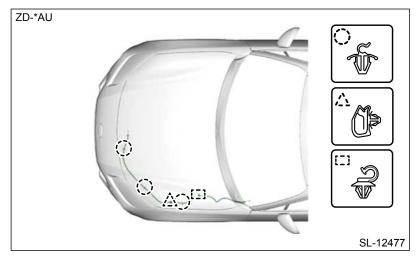
#### Note:

A string makes operation easier during installation.

- 7. Remove the opener handle.
  - (1) Remove the cable assembly front hood.
  - (2) Remove the bolt, and remove the opener handle.



- 8. Remove the cable assembly front hood.
  - (1) Remove the cable assembly front hood from the clips.



(2) Remove the attached string from the end of the cable assembly front hood.

## Note:

Leave the string attached to the body, and use it during installation.

### INSTALLATION

### 1. HOOD LOCK ASSEMBLY

- **1.** Check the cable for deformation such as fray before installation.
- 2. Install the cable assembly front hood.
- 3. Install the lock assembly front hood.
  - (1) Adjust and install the lock assembly front hood.

## Note:

Refer to "ADJUSTMENT" of the lock assembly front hood. 
Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>ADJUSTMENT.

# **Tightening torque:**

33 N·m (3.4 kgf-m, 24.3 ft-lb)

- (2) Install the harness clip and the connector clip.
- (3) Connect the connector.
- **4.** Install the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>INSTALLATION.
- **5.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
- **6.** Check the clearance and surface level gap between hood COMPL front and bumper face front, and adjust if it is outside the standard value. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.

### 2. HOOD CABLE ASSEMBLY

## Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Check the cable for deformation such as fray before installation.
- **2.** Install the cable assembly front hood.

## Note:

Tie the string left on the body to the cable assembly front hood and pull it out of the vehicle.

3. Install the opener handle.

### **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

- **4.** Install the lock assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>INSTALLATION > HOOD LOCK ASSEMBLY.
- **5.** Install the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>INSTALLATION.
- **6.** Install the cover side sill front Ft LH and the cover side sill front Rr LH. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
- 7. Install the cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > OUTSIDE.

- 8. Install the mud guard front LH. <a>Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION</a>.
- **9.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

# **SECURITY AND LOCKS > Front Hood Lock Assembly**

## **ADJUSTMENT**

## 1. HOOD LOCK ASSEMBLY

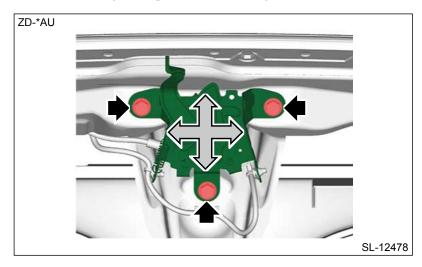
1. Loosen the bolts, and adjust the lock assembly front hood while moving it.

#### Caution:

After adjustment, tighten the bolts securely.

# **Tightening torque:**

33 N·m (3.4 kgf-m, 24.3 ft-lb)



2. Check the clearance and surface level gap between hood COMPL front and bumper face front, and adjust if it is outside the standard value. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.

# **SECURITY AND LOCKS > Front Hood Lock Assembly**

## **INSPECTION**

# 1. HOOD LOCK ASSEMBLY

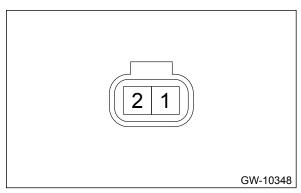
Check if the lock assembly front hood operates normally.

If lever deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly front hood.

### 2. UNIT INSPECTION

1. Check hood switch

Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 2	LOCK	$1~ ext{M}\Omega$ or more
	UNLOCK	Less than 1 $\Omega$

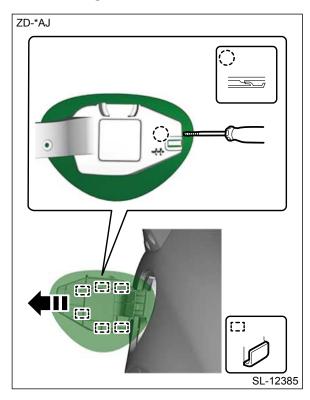
2. Replace the lock assembly front hood if faulty is found in the inspection.

### SECURITY AND LOCKS > Fuel Lid

### **REMOVAL**



- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the trim panel trunk rear and the trunk trim panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
- 3. Remove the flap outer.
  - (1) Insert a flat tip screwdriver or similar tool wrapped with protection tape or a cloth so that it comes in touch with the claw on the flap outer side.
  - (2) Use a flat tip screwdriver or similar tool to lever off the claw toward the flap outer side at the end of the flap outer.
  - (3) With the condition of step (2), slide the flap outer toward the vehicle outside to release the claw and guide.

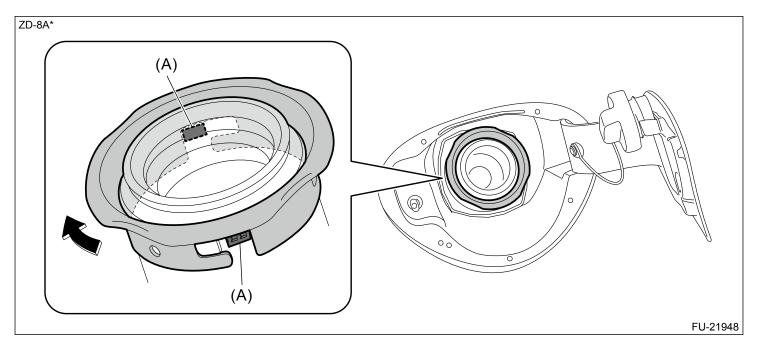


Remove the fuel filler cap.

#### Note:

The clip of the fuel filler cap cannot be reused, therefore, do not remove the clip unless the saucer COMPL is replaced.

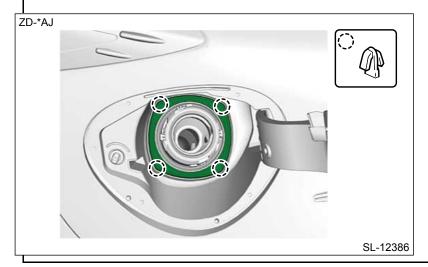
5. Release the lock (A), and turn the fuel filler pipe protector in the direction of the arrow to remove it.



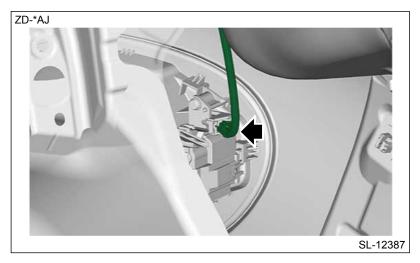
**6.** Release the claws and then remove the ring clip.

# Caution:

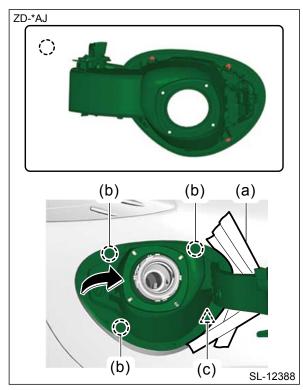
Do not reuse the ring clip and replace with a new part, because engagement of the claw weakens.



- 7. Remove the saucer COMPL.
  - (1) Disconnect the connector of the lock assembly fuel from the vehicle interior.



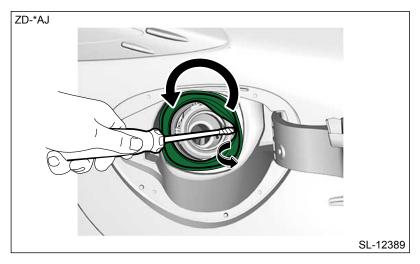
- (2) Attach the protective tape (a) to the panel side outer.
- (3) Release the claw (b) from vehicle inside, and pull out the saucer COMPL toward yourself, then release the claw (c).



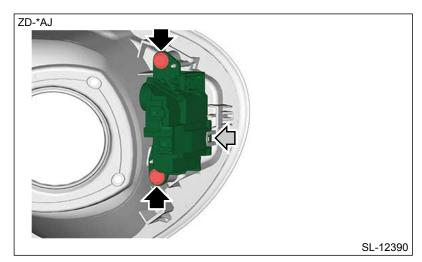
(4) Remove the rubber portion from the fuel filler pipe using a flat tip screwdriver or similar tool wrapped with protection tape, and pull out the saucer COMPL while tilting it toward vehicle front.

## Caution:

Be careful not to damage by forcibly prying at the rubber portion with a flat tip screwdriver or similar tool.



8. Remove the screws and release the claws, then detach the lock assembly fuel.



## SECURITY AND LOCKS > Fuel Lid

## **INSTALLATION**

- **1.** Install the lock assembly fuel.
- **2.** Install the saucer COMPL, then connect the connector.

## Note:

Securely install the rubber portion of the saucer COMPL to the fuel filler pipe.

- 3. Install a new ring clip.
- 4. Install the fuel filler pipe protector.
- 5. Install the fuel filler cap.
- **6.** Install the flap outer.
- 7. Install the trunk trim panel side RH and the trim panel trunk rear. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
- **8.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Fuel Lid

## **INSPECTION**

## 1. CHECK OPERATION

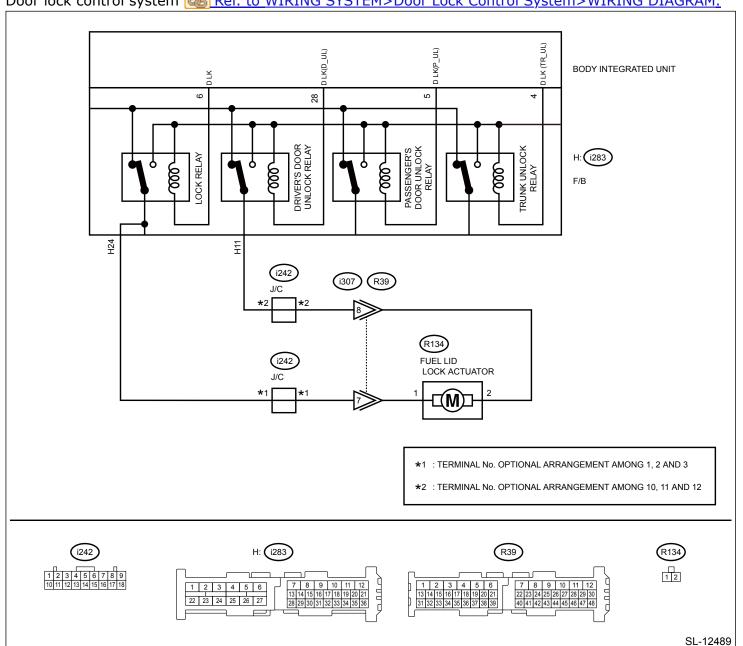
Check if the fuel flap operate normally. If the flap is deformed, replace the flap outer.

# 2. TROUBLE SYMPTOM

Electric fuel lock system does not operate.

# Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



# 1. CHECK DOOR LOCK/UNLOCK OPERATION.



- 1. Turn the ignition switch to OFF.
- 2. Using the access key and touch sensor, check that door lock/unlock operates.

Does it lock/unlock normally?



**Go to 2.** 



Check the door lock actuator and circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.

## 2. CHECK ELECTRIC FUEL UNLOCK OPERATION.



- 1. Using the access key and touch sensor, lock/unlock the door.
- 2. Check that the electric fuel unlock operates linked to the door lock/unlock.

Does it operate properly?



Electric fuel unlock is normal.



**Go to 3.** 

## 3. CHECK HARNESS.



- Turn the ignition switch to OFF.
- 2. Disconnect the connector of the body integrated unit and fuel lid lock actuator.
- **3.** Check the harness between the body integrated unit and fuel lid lock actuator.

## **Connector & terminal**

(i283) No. 24 — (R134) No. 1: (i283) No. 11 — (R134) No. 2:

Is harness normal?



**60 to 4.** 



Repair or replace the defective part.

# 4. CHECK FUEL LID LOCK ACTUATOR.



Apply battery voltage between fuel lid lock actuator connector terminals.

## **Connector & terminal**

Lock
No. 1 (+) — No. 2 (-):
Unlock
No. 2 (+) — No. 1 (-):

Does it operate properly?



Check the connector. Repair or replace if abnormal.

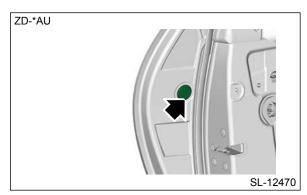


Replace the lock assembly fuel. Ref. to SECURITY AND LOCKS>Fuel Lid.

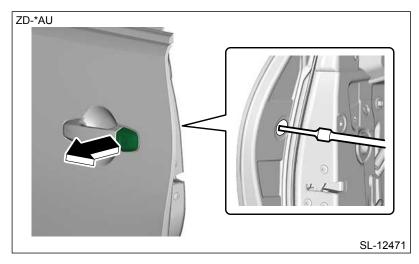
## **REPLACEMENT**

# 1. FRONT DOOR

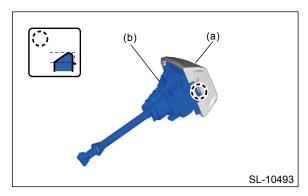
- 1. Raise the glass assembly front door to the top position.
- 2. Remove the plug at the rear end of the panel assembly front door.



 $\mbox{\bf 3.}$  Using TORX  $^{\mbox{\it \tiny B}}$  T30, loosen the bolt and remove the cover handle front outer.



- 4. Replace the key cylinder.
  - (1) Release the claws.
  - (2) Remove the key cylinder (b) from the cover handle front outer (a), and replace the key cylinder.



5. Using TORX<sup>®</sup> T30, install the cover handle front outer.

# Note:

When installing the outer handle cover on the driver's side, make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

# **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

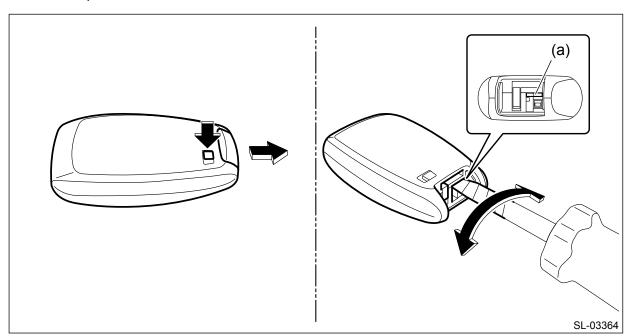
**6.** Install the plugs.

# 1. ACCESS KEY BATTERY

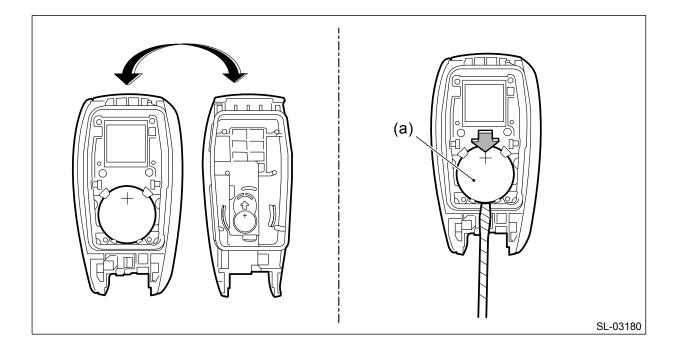
#### Caution:

To prevent static electricity damage to the access key printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the access key.

- **1.** Remove the mechanical key.
  - (1) Push the lock button and remove the mechanical key from the access key.
- 2. Remove the access key battery.
  - (1) Insert a flat tip screwdriver end wrapped with insulating tape etc. into the slit (a) of the access key to open the case.



(2) Insert a flat tip screwdriver wrapped with insulating tape, and while holding the upper side of the battery (a), remove the battery (a) from the case.



# SECURITY AND LOCKS > Access Key

## **INSTALLATION**

## 1. ACCESS KEY BATTERY

- 1. Install the access key battery.
- **2.** Install the mechanical key.

# **SECURITY AND LOCKS > Access Key**

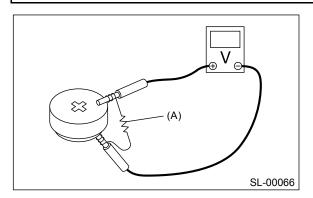
## **INSPECTION**

## 1. ACCESS KEY BATTERY

Measure the access key battery voltage.

# Note:

Complete the measurement within 5 seconds because the battery discharges during measurement.



Battery terminal	Inspection conditions	Standard

(+) - (-) Connect resistor (A) 510  $\Omega$  2.5 - 3 V

Replace the battery if the inspection result is not within the standard value. (Use CR2032 or equivalent)

# **SECURITY AND LOCKS > Access Key**

## REPLACEMENT

## 1. ACCESS KEY REGISTRATION

For detailed access key registration, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

#### Note:

- A maximum of seven access keys can be registered for each individual vehicle.
- When replacing or adding an access key, new registration of the access key is necessary.
- When the access key has been newly added, it is registered to the immobilizer system at the same time.

# **SECURITY AND LOCKS > Immobilizer Antenna**

## **NOTE**

Immobilizer antenna is integrated with the push button start switch.

For the operation procedures of the immobilizer antenna, refer to "Push Button Ignition Switch". Ref. to SECURITY AND LOCKS>Push Button Ignition Switch.

#### **REMOVAL**

#### 1. FRONT ANTENNA

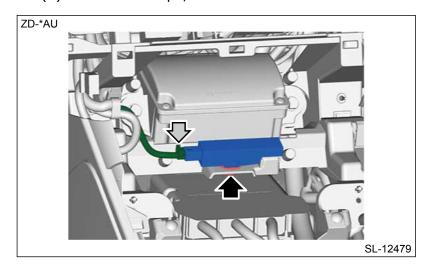
#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

#### Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **2.** Remove the boot assembly parking brake and the console box assembly. <a>Ref. to</a> EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
- 3. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
- **4.** Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
- **5.** Remove the cover assembly instrument panel side RH and the panel center UPR assembly. <a href="Ref. to">Ref. to</a> <a href="AIR CONDITIONER">AIR CONDITIONER</a> <a href="Air Vent Grille</a> <a href="REMOVAL">REMOVAL</a> <a href="CENTER GRILLE">CENTER GRILLE</a>.
- **6.** Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
- 7. Remove the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>REMOVAL.
- **8.** Remove the front antenna assembly interior.
  - (1) Disconnect the connector.
  - (2) Release the clips, and remove the front antenna assembly interior.

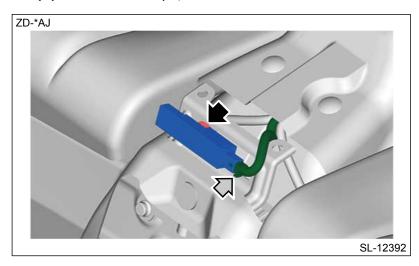


#### 2. CENTER ANTENNA

#### Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the boot assembly parking brake and the console box assembly. <a>Ref. to</a> <a>EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.</a>
- **3.** Remove the center antenna assembly interior.
  - (1) Disconnect the connector.
  - (2) Release the clips, and remove the center antenna assembly interior.

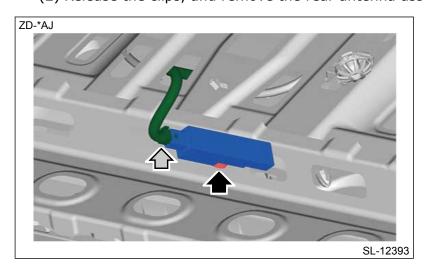


## 3. REAR ANTENNA

## Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the rear antenna assembly interior.
  - (1) Disconnect the connector.
  - (2) Release the clips, and remove the rear antenna assembly interior.



SECURITY AND LOCKS > Keyless Access Indoor Antenna

**INSTALLATION** 

#### 1. FRONT ANTENNA

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Install the front antenna assembly interior and connect the connector.
- 2. Install the heater control assembly. Ref. to AIR CONDITIONER > Control Panel > INSTALLATION.
- **3.** Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
- **4.** Install the panel center UPR assembly and cover assembly instrument panel side RH. <a href="Ref. to AIR">Ref. to AIR</a> CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
- **5.** Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
- 6. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
- 7. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
- 8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

#### 2. CENTER ANTENNA

- 1. Install the center antenna assembly interior and connect the connector.
- 2. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
- 3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

#### 3. REAR ANTENNA

- 1. Install the rear antenna assembly interior and connect the connector.
- 2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Keyless Access Indoor Antenna

#### **INSPECTION**

Check the keyless access interior antenna using the Subaru Select Monitor.

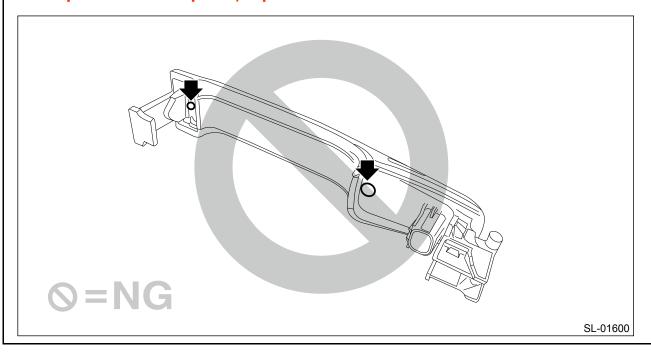
- 1. Check the setting by performing the keyless access with push button start system check. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Work Support>LIST.
- 2. While carrying the access key, operate the touch sensor of the door handle to check if door lock operates.
- 3. If the system does not operate normally as the result of inspection, refer to "Diagnostics with Phenomenon" of the "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. <u>Ref.</u> to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > KEYLESS ACCESS SYSTEM.

#### 1. FRONT ANTENNA

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".
   Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- Do not detach the antenna from the outer handle.

  If replacement is required, replace the handle front door outer as a unit.



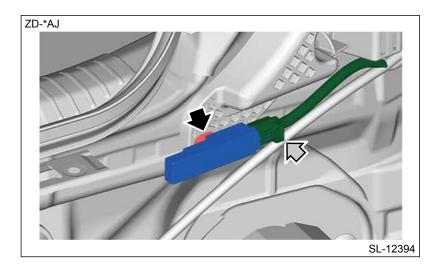
- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **2.** Remove the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>REMOVAL.

## 2. REAR ANTENNA

#### Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL.
- 3. Remove the rear antenna assembly exterior.
  - (1) Disconnect the connector.
  - (2) Release the clips, and remove the rear antenna assembly exterior.



**SECURITY AND LOCKS > Keyless Access Outdoor Antenna** 

#### **INSTALLATION**

#### 1. FRONT ANTENNA

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Install the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>INSTALLATION.
- 2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

#### 2. REAR ANTENNA

- 1. Install the rear antenna assembly exterior and connect the connector.
- 2. Install the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>INSTALLATION.
- 3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Keyless Access Outdoor Antenna

#### **INSPECTION**

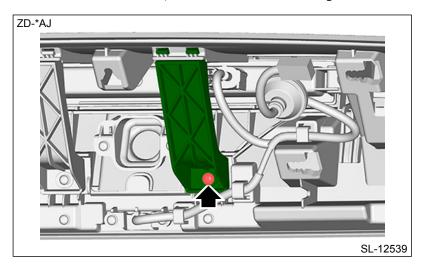
Check the keyless access exterior antenna using the Subaru Select Monitor.

- 1. Check the setting by performing the keyless access with push button start system check. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Work Support>LIST.
- 2. While bringing the access key, operate the trunk opener button to check if the trunk lid is opened.
- 3. If the system does not operate normally as the result of inspection, refer to "Diagnostics with Phenomenon" of the "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. <a href="https://example.com/be/section-left">https://example.com/be/section-left</a> START (DIAGNOSTICS) > Diagnostics with Phenomenon > LIST > KEYLESS ACCESS SYSTEM.

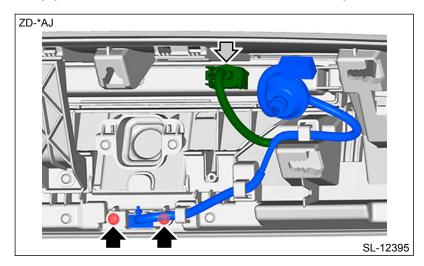
## **SECURITY AND LOCKS > Trunk Opener Button**

## **REMOVAL**

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
- 3. Remove the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Garnish>REMOVAL.
- **4.** Remove the screw, and then remove the garnish bracket LH.



- 5. Remove the trunk opener button.
  - (1) Disconnect the connector of the light assembly high-mounted.
  - (2) Remove screws and remove the trunk opener button.



# **SECURITY AND LOCKS > Trunk Opener Button**

#### INSTALLATION

- **1.** Install the trunk opener button.
- **2.** Connect the connector of the light assembly high-mounted.
- 3. Install the garnish bracket LH.
- **4.** Install the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Garnish>INSTALLATION.
- 5. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room

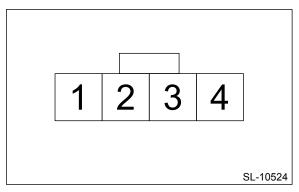
## Trim>INSTALLATION.

6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

# **SECURITY AND LOCKS > Trunk Opener Button**

## **INSPECTION**

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 2	When the switch is not pressed	1 M $\Omega$ or more
	When the switch is pressed	Less than 5 $\Omega$

2. Replace the trunk opener button if the inspection result is not within the standard value.

## SECURITY AND LOCKS > Keyless Access CM

#### **REMOVAL**

#### Caution:

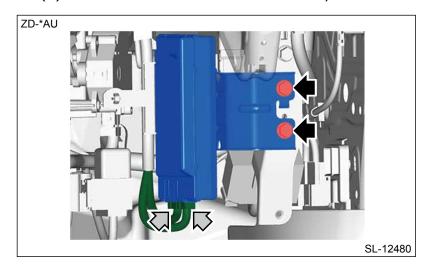
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the pocket COMPL. <u>Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.</u>
- **3.** Remove the boot assembly parking brake and the console box assembly. <a> Ref. to</a> EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
- 4. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
- **5.** Remove the cover LWR driver INN. <u>Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.</u>
- **6.** Remove the cover assembly instrument panel side RH and the panel center UPR assembly. <a> Ref. to</a> <a> AIR CONDITIONER>AIR Vent Grille>REMOVAL > CENTER GRILLE.</a>
- **7.** Remove the center information display assembly. <a>Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.</a>
- 8. Remove the heater control assembly. Ref. to AIR CONDITIONER > Control Panel > REMOVAL.
- **9.** Remove the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
- **10.** Remove the keyless access CM.

#### Caution:

Be careful to keep water and other foreign materials away from the keyless access CM terminals.

- (1) Disconnect the connector.
- (2) Remove the bolts and remove the keyless access CM.



SECURITY AND LOCKS > Keyless Access CM

**INSTALLATION** 

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".
   <u>Description>CAUTION.</u>
- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- 1. Install the keyless access CM and connect the connector.

#### **Tightening torque:**

- 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
- **2.** Install the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove
  Box>INSTALLATION > BACK PANEL.
- 3. Install the heater control assembly. <a> Ref. to AIR CONDITIONER>Control Panel>INSTALLATION</a>.
- **4.** Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
- **5.** Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
- **6.** Install the cover LWR driver INN. <a>Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.</a>
- 7. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
- **8.** Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
- **9.** Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
- **10.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > ID Code Box

## NOTE

## Caution:

When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

## Note:

**Equipped on CO model with keyless access with push button start.** 

For operation procedures of the ID code box, refer to "REGISTRATION MANUAL FOR IMMOBILIZER".

# SECURITY AND LOCKS > Steering Lock CM

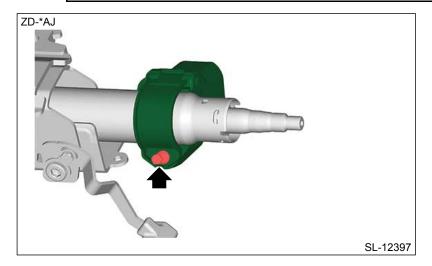
#### REPLACEMENT

#### Caution:

- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".
   <u>Description>CAUTION.</u>
- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the cover LWR driver INN and cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
- 3. Remove the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.
- 4. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
- **5.** Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
- **6.** Remove the column assembly steering. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
- 7. Remove the steering lock CM.
  - (1) Secure the column assembly steering in a vise.
  - (2) Use the reverse tap and drill to remove the set bolt, and remove the steering lock CM.

#### Caution:

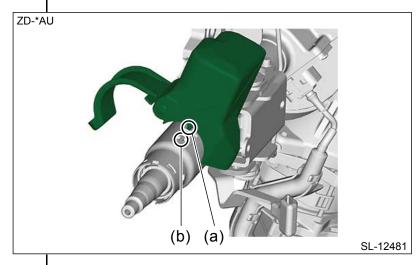
Do not apply any impact to the set bolt by a chisel or punch. Doing so may damage the steering lock CM.



- **8.** Install the steering lock CM.
  - (1) Secure the steering lock CM to the column assembly steering.

## Note:

When installing the steering lock CM, confirm that the fitting portion of the steering lock CM is properly engaged with the opening portion of the column shaft.



- (a) Fitting portion
- (b) Opening portion
- (2) Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).
- **9.** Install the column assembly steering. <a> Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.</a>
- **10.** Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
- **11.**Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
- 12. Install the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
- **13.**Install the cover LWR driver OUT and cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
- 14. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

# SECURITY AND LOCKS > Steering Lock CM

## **INSPECTION**

For inspection of the steering lock CM, refer to "Diagnostics with Phenomenon" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > STEERING LOCK SYSTEM.

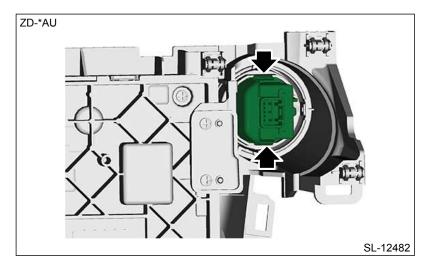
## **SECURITY AND LOCKS > Push Button Ignition Switch**

#### REMOVAL

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

- 1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **2.** Remove the boot assembly parking brake and the console box assembly. <a> Ref. to</a> EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
- 3. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
- **4.** Remove the cover LWR driver INN. <u>Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower</u> Cover>REMOVAL > INSIDE.
- **5.** Remove the cover assembly instrument panel side RH and the panel center UPR assembly. <a> Ref. to</a> AIR CONDITIONER>AIR Vent Grille>REMOVAL > CENTER GRILLE.
- **6.** Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
- 7. Remove the heater control assembly. Ref. to AIR CONDITIONER > Control Panel > REMOVAL.
- **8.** Release the claws, and remove the push button start switch.



## **SECURITY AND LOCKS > Push Button Ignition Switch**

#### **INSTALLATION**

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

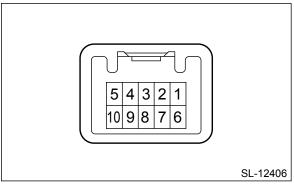
- **1.** Install the push button start switch.
- 2. Install the heater control assembly. See Ref. to AIR CONDITIONER > Control Panel > INSTALLATION.
- **3.** Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.

- **4.** Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
- **5.** Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
- 6. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
- 7. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
- 8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## **SECURITY AND LOCKS > Push Button Ignition Switch**

#### INSPECTION

**1.** Check the continuity between the connector terminals.



Terminal No.	Inspection conditions	Standard
5 (SSW1) — 6 (GND)	When the push switch is not pressed	1 M $\Omega$ or more
1 (SSW2) — 6 (GND)	When the push switch is not pressed	1 M $\Omega$ or more
5 (SSW1) — 6 (GND)	When the push switch is pressed	Less than 1 $\Omega$
1 (SSW2) — 6 (GND)	When the push switch is pressed	Less than 1 $\Omega$

2. Check the push button start switch operation when battery voltage is applied between the connector terminals.

#### Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (-) side.

Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
9 (SWIL) — 6 (GND)	Connect battery to the terminals	Character illumination lights up

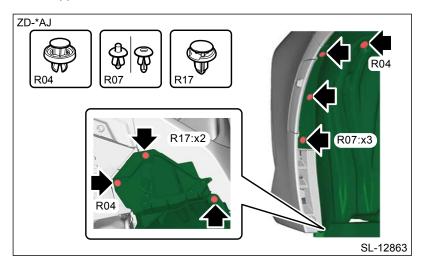
**3.** Replace the push button start switch if it is found defective.

## SECURITY AND LOCKS > Access Buzzer

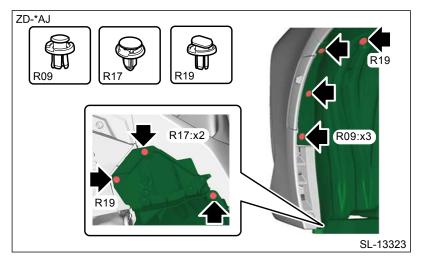
## **REMOVAL**



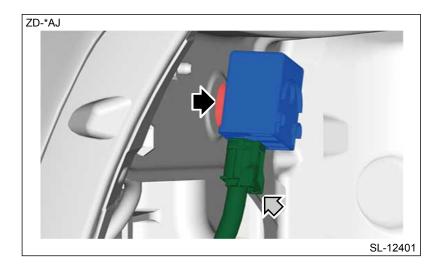
- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Lift up the vehicle.
- 3. Remove the clips, and turn over the mud guard front LH.
  - Type A



• Type B



- 4. Remove the access buzzer.
  - (1) Disconnect the connector.
  - (2) Release the clip and detach the access buzzer.



## SECURITY AND LOCKS > Access Buzzer

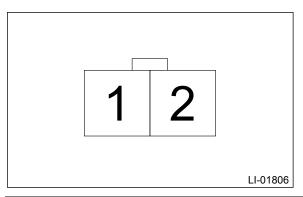
## **INSTALLATION**

- 1. Install the access buzzer and connect the connector.
- 2. Install the mud guard front LH. <a>Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION</a>.
- 3. Lower the vehicle.
- **4.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

## SECURITY AND LOCKS > Access Buzzer

## INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 2	Always	270 — 330 Ω

2. Replace the access buzzer if the inspection result is not within the standard value.

# **SECURITY AND LOCKS > Function Setting (Customize)**

#### **OPERATION**

Disabling/Activating the keyless access system

The following functions are disabled when the keyless access system functions are disabled:

- LOCK function performed by the operation of touch sensor on the door outer handle
- UNLOCK function by holding the door handle
- Trunk lid open function by trunk opener button operation in the trunk lid lock condition
- Keyless access warning function
- Engine starting control using keyless access collation

# **SECURITY AND LOCKS > Function Setting (Customize)**

### **PROCEDURE**

# 1. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY DOOR OPEN/CLOSE PROCEDURE

- 1. Check that the vehicle status is as follows:
  - Ignition switch OFF
  - One window is completely open
  - Keyless access system is activated (or disabled if re-activating)
- 2. Sit in the driver's seat with the door closed and press the door lock switch to UNLOCK once.
- 3. Open the driver's door within five seconds.
- **4.** Within 5 seconds, with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
- 5. Within 10 seconds after finishing step 4., perform the closing → opening operation of the driver's door twice.
- **6.** Within 10 seconds after finishing step 5., with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
- **7.** Within 10 seconds after finishing step 6., perform the closing → opening operation of the driver's door once.
- **8.** Within five seconds after finishing step 7., close the driver's door.
- **9.** The buzzer sounds for two seconds, and the function stops.

# Note:

- Perform the same procedures to re-activate the keyless access system from the disabled condition.
- In step 4. and step 6., press the door lock switch completely. The function may not work properly if the switch is pressed shortly.

#### 2. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY USING ACCESS KEY

- 1. Open the driver's door, and then push the door lock knob forward (LOCK direction).
- 2. Press the lock button of access key and trunk button simultaneously for five seconds or more.
- **3.** The buzzer sounds for two seconds, and the function stops.

## Note:

- For stopping the keyless access system function by using access key, it is necessary to ask the customer to register the secret code of the secret code keyless entry. (Refer to owner's manual for details.)
- Perform the same procedures to re-activate the keyless access system from the disabled condition.

# **SECURITY AND LOCKS > Diagnostics with Phenomenon**

## INSPECTION

## 1. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

For the diagnostics with phenomenon for keyless access with push button start system, refer to "Diagnostics with Phenomenon" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon.